PRELIMINARY STATISTICAL SUMMARY

By Stephen D. Smith

This preliminary report summarizes data on crude nonfuel mineral production[1] for the United States, its island possessions, and the Commonwealth of Puerto Rico.

Although crude mineral production may be measured at any of several stages of extraction and processing, the stage of measurement used in this annual report is what is termed "mine output." This term refers to minerals or ores in the form in which they are first extracted from the ground, but customarily may include the output from auxiliary processing at or near the mines.

Because of inadequacies in the statistics available, some series deviate from the foregoing definition. For copper, gold, lead, silver, and zinc, the quantities shown are recorded on a mine basis (as the recoverable content of ore sold or treated). The values assigned to the quantities, however, are based on the average selling price of refined metal, not the mine value.

Mercury is measured as recovered metal and valued at the average New York price for the metal. Values shown are in current dollars, with no adjustments made to compensate for changes in the purchasing power of the dollar.

The preliminary total value of all nonfuel mineral production in the United States decreased by 1% to $37.9 billion in 2002, with metals decreasing by less than 7.5% to $8 billion, and industrial minerals increasing by less than 1% to $29.9 billion compared with those of 2001.[2] Eight of the mineral commodities produced in the United States in 2002 had preliminary individual total production values that were greater than $1 billion. These commodities were, in descending order, stone (crushed), cement (portland), sand and gravel (construction), gold, copper, iron ore (usable), lime, and salt. They accounted for more than 77% of the U.S. total production value (table 1).

In 2002, 15 States produced nonfuel mineral commodities with preliminary individual total production values that were greater than $1 billion. These States were, in descending order, California, Nevada, Texas, Florida, Arizona, Michigan, Georgia, Missouri, Pennsylvania, Utah, Minnesota, Ohio, Alaska, Wyoming, and New York. They accounted for more than 64% of the U.S. total production value (table 3).

[1]The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

[2]All 2002 USGS mineral production data published in this chapter are preliminary estimates as of December 2003 and are expected to change. For some mineral commodities, such as construction sand and gravel, crushed stone, and portland cement, estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Specialist contact information may be retrieved over the Internet at URL http://minerals.usgs.gov/minerals/contacts/comdir.html; alternatively, specialist's names and telephone numbers may be obtained by calling USGS information at (703) 648-4000 or by calling the USGS Earth Information Center at 1-800-ASK-USGS (275-8747). All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

TABLE 1
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES[1, 2]

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral		2000		2001		2002[p]	
		Quantity	Value	Quantity	Value	Quantity	Value
Metals:							
Antimony[3]	metric tons	W	W	--	--	--	--
Beryllium concentrates	do.	4,510	5	2,480	3	2,500	3
Copper[4]		1,450	2,810,000	1,340	2,270,000	1,130	1,860,000
Gold[4]	kilograms	353,000	3,180,000	335,000	2,930,000	300,000	2,940,000
Iron ore, usable		61,000	1,560,000	50,600	1,210,000	50,000	1,190,000
Iron oxide pigments, crude	metric tons	57,100	4,470	61,500	3,460	W	1,030
Lead[4]	do.	449,000	431,000	454,000	437,000	451,000	433,000
Molybdenum concentrates[3]	do.	40,900	212,000 [r]	37,600	198,000	32,600	236,000
Palladium[3]	kilograms	10,300	228,000	12,100	237,000	13,000	138,000
Platinum[3]	do.	3,110	54,900 [r]	3,610	61,900	3,900	70,100
Rare-earth metal concentrates[e, 3]	metric tons	5,000	W	5,000	27,600	5,000	27,600
Silver[4]	do.	1,980 [r]	318,000 [r]	1,740	245,000	1,470	207,000
Zinc[4]	do.	805,000	987,000	799,000	774,000	740,000 [e]	660,000 [e]
Combined value of magnesium metal, mercury (2000), titanium concentrates, zirconium concentrates, and values indicated by symbol W		XX	343,000 [r]	XX	247,000	XX	227,000
Total		XX	10,100,000	XX	8,640,000	XX	8,000,000
Industrial minerals, excluding fuels:							
Asbestos	metric tons	5,260	W	5,260	W	2,720	W
Barite		392	9,840	400	11,000	410	11,800
Boron		1,070	557,000	1,050	506,000	623	468,000
Bromine	metric tons	228,000	206,000	212,000	159,000	225,000	223,000
Cement:							
Masonry		4,330	461,000 [e]	4,450	477,000 [e]	4,440 [e]	480,000 [e]
Portland		83,500	6,440,000 [e]	84,500	6,350,000 [e]	84,700 [e]	6,360,000 [e]
Clays:							
Ball		1,140	48,400	1,110	45,200	1,070	42,800
Bentonite		3,760	155,000	4,290	187,000	4,110	184,000
Common		23,700	135,000	23,200	129,000	24,200	132,000
Fire		476	7,560	383	5,970	355	6,650
Fuller's earth		2,910	254,000	2,890	233,000	3,410	264,000
Kaolin		8,800	929,000	8,110	867,000	7,450	719,000
Diatomite		677	173,000	644	174,000	701	179,000
Feldspar	metric tons	790,000	44,500	800,000	44,100	820,000	45,800
Garnet, industrial	do.	60,200	7,060	52,700	6,430	46,900 [e]	5,270 [e]
Gemstones		NA	17,200	NA	15,100	NA	12,900
Gypsum, crude		19,500	165,000	16,300	119,000	16,100	118,000
Helium:							
Crude	million cubic meters	62	56,600	46	50,200	41	44,100
Grade-A	do.	127	251,000	132	262,000	139	276,000
Iodine	metric tons	1,470	21,500	1,290	18,400	1,710	18,000
Kyanite[e]		90	13,400	90	13,400	90	13,400
Lime		19,600	1,180,000	18,900	1,160,000	18,400	1,180,000
Mica, crude		104	14,100	98	7,990	84	7,560
Peat		847	22,700	998	24,800	940,000	23,100
Perlite, crude	metric tons	672,000	22,700	588,000	21,300	548,000	18,500
Phosphate rock, marketable		38,600	932,000	31,900	856,000	35,800	990,000
Potash		2,600	290,000	2,400	260,000	2,600	270,000
Pumice and pumicite	metric tons	697,000	16,900	618,000	18,000	950,000	22,900
Salt		43,300	1,040,000	42,200	1,110,000	41,200	1,030,000
Sand and gravel:							
Construction		1,120,000	5,390,000	1,130,000	5,670,000	1,130,000	5,800,000
Industrial		28,400	556,000	27,900	576,000	27,900	565,000
Silica stone[5]	metric tons	312	4,610	393	4,040	393	4,040
Soda ash		10,200	748,000	10,300	773,000	10,300	770,000
Stone, crushed[6]		1,550,000 [r]	8,290,000 [r]	1,600,000	8,920,000	1,590,000	9,090,000
Tripoli	metric tons	72,000	15,900	60,500	15,100	60,500	15,100
Vermiculite	do.	150,000	W	W	W	W	W
Zeolites	do.	(7)	NA	(7)	NA	(7)	NA

See footnotes at end of table.

TABLE 1--Continued
NONFUEL MINERAL PRODUCTION IN THE UNITED STATES[1, 2]

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	2000		2001		2002[p]	
	Quantity	Value	Quantity	Value	Quantity	Value
Industrial minerals, excluding fuels--Continued:						
Combined value of brucite, emery (2002), greensand marl, lithium carbonate, magnesite, magnesium compounds, olivine, pyrophyllite (crude), staurolite, stone (dimension), sulfur [Frasch (2000)], talc (crude), wollastonite, and values indicated by symbol W	XX	619,000	XX	582,000	XX	550,000
Total	XX	29,100,000 [r]	XX	29,700,000	XX	29,900,000
Grand total	XX	39,200,000 [r]	XX	38,300,000	XX	37,900,000

[e]Estimated. [p]Preliminary. [r]Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined value."
XX Not applicable. -- Zero.
[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
[2]Data are rounded to three significant digits; may not add to totals shown.
[3]Content of ore and concentrate.
[4]Recoverable content of ores, etc.
[5]Includes grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.
[6]Excludes abrasive stone and bituminous limestone and sandstone; all included elsewhere in table.
[7]Withheld to avoid disclosing company proprietary data.

TABLE 2

NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 2002[p]

(Principal States based upon quantity unless otherwise noted)

Mineral	Principal States	Other States (alphabetical order)
Asbestos	CA	
Barite	NV and GA	
Beryllium concentrate	UT	
Boron	CA	
Bromine	AR and MI	
Brucite	NV and TX	
Cement:		
Masonry	FL, CA, SC, IN, AL	AZ, AR, CO, GA, IA, KS, KY, ME, MD, MI, MO, MT, NE, NM, NY, OH, OK, PA, TN, TX, VA, WV.
Portland	CA, TX, PA, MI, MO	All other States, except AK, CT, DE, HI, LA, MA, MN, NH, NJ, NC, ND, RI, VT, WI.
Clays:		
Ball	TN, TX, KY, MS	
Bentonite	WY, MT, MS, AL, UT	AZ, CA, CO, NV, OR, TX.
Common	AL, TX, NC, CA, OH	All other States, except AK, DE, HI, ID, NH, NJ, RI, VT, WI.
Fire	MO and OH	
Fuller's earth	GA, IL, M0, MS, FL	CA, KS, TN, TX, VA.
Kaolin	GA, AL, SC, CA, AR	FL, NV, NC, TX.
Copper[1]	AZ, UT, NM, ID, MO	AK.
Diatomite	CA, NV, OR, WA	
Emery	OR	
Feldspar	NC, VA, CA, GA, OK	ID and SD.
Garnet, industrial	ID, NY, MT	
Gemstones, natural[2]	NC, CA, VA, GA, OK	All other States.
Gold[1]	NV, UT, AK, CA, CO	AZ, ID, MT, SD, WA.
Greensand marl	NJ	
Gypsum, crude	OK, NV, IA, TX, CA	AZ, AR, CO, IN, KS, LA, MI, NM, NY, NC, OH, SD, UT, WY.
Helium:		
Crude	KS, TX, OK	
Grade-A	KS, WY, OK, TX, UT	CO.
Iodine	OK	
Iron ore, usable	MN, MI, NM, SD, CA	
Iron oxide pigments, crude	GA, MI, AL, VA	
Kyanite	VA	
Lead[1]	MO, AK, ID, MT	
Lime	MO, AL, OH, KY, TX	All other States, except AK, CT, DE, FL, HI, KS, ME, MD, MS, NH, NJ, NY, NC, RI, SC, VT.
Lithium carbonate	NV	
Magnesite	NV	
Magnesium compounds	MI, UT, FL, DE, CA	
Magnesium metal	UT	
Mica, crude	NC, GA, NM, SC, SD	AZ.
Molybdenum	AZ, CO, UT, ID, NM	
Olivine	WA and NC	
Palladium[1]	MT	
Peat	FL, MI, MN, IN, IL	IA, ME, MT, NJ, NY, NC, OH, PA, WA, WV, WI.
Perlite	NM, OR, UT, AZ, NV	CA and ID.
Phosphate rock	FL, ID, NC, UT	
Platinum[1]	MT	
Potash	NM, UT, MI	
Pumice and pumicite	AZ, OR, NM, CA, ID	KS.
Pyrophyllite, crude	NC and CA	
Rare-earth metal concentrates	CA	
Salt	LA, TX, NY, OH, KS	AL, AZ, CA, MI, NV, NM, OK, TN, UT, WV.
Sand and gravel:		
Construction	CA, TX, MI, AZ, OH	All other States.
Industrial	IL, MI, CA, TX, NC	All other States, except AK, CT, DE, HI, KY, ME, MA, MT, NH, OR, SD, UT, VT, WY.
Silica stone[3]	AR	
Silver[1]	AK, NV, ID, UT, AZ	CA, CO, MO, MT, SD, WA.
Soda ash	WY, CA, CO	
Staurolite	FL	

See footnotes at end of table.

TABLE 2--Continued

NONFUEL MINERALS PRODUCED IN THE UNITED STATES, BY COMMODITY AND STATES IN 2002[p]

(Principal States based upon quantity unless otherwise noted)

Mineral	Principal States	Other States (alphabetical order)
Stone:		
Crushed	TX, FL, PA, MO, IL	All other States, except DE.
Dimension	IN, GA, WI, VT, TX	All other States, except AK, DE, FL, HI, IL, IA, KY, LA, MS, NE, NV, NJ, ND, OR, RI, WY.
Talc, crude	MT, TX, VT, NY, OR	
Titanium concentrates:		
Ilmenite	FL and VA	
Rutile	FL	
Tripoli	IL, OK, AR, PA	
Vermiculite, crude	SC and VA	
Wollastonite	NY	
Zeolites	NM, TX, OR, AZ, NV	CA and ID.
Zinc[1]	AK, TN, MO, MT, ID	
Zirconium concentrates	FL and VA	

[p]Prelimninary.

[1]Content of ores, etc.

[2]Principal producing States based on value.

[3]Grindstones, pulpstones, and sharpening stones; excludes mill liners and grinding pebbles.

TABLE 3

VALUE OF NONFUEL MINERAL PRODUCTION IN THE UNITED STATES AND PRINCIPAL NONFUEL MINERALS PRODUCED IN 2002[p, 1]

State	Value (thousands)	Rank	Percent of U.S. total	Principal minerals, in order of value
Alabama	$968,000	16	2.55	Cement (portland), stone (crushed), lime, sand and gravel (construction), cement (masonry).
Alaska	1,030,000	13	2.72	Zinc, gold, lead, silver, sand and gravel (construction).
Arizona	1,900,000	5	5.02	Copper, sand and gravel (construction), cement (portland), molybdenum concentrates, stone (crushed).
Arkansas	543,000	26	1.43	Bromine, stone (crushed), cement (portland), sand and gravel (construction), lime.
California	3,440,000	1	9.07	Sand and gravel (construction), cement (portland), boron minerals, stone (crushed), gold.
Colorado	614,000	23	1.62	Sand and gravel (construction), cement (portland), stone (crushed), molybdenum concentrates, gold.
Connecticut[2]	142,000	42	0.37	Stone (crushed), sand and gravel (construction), stone (dimension), clays (common), gemstones.
Delaware[2]	17,500	49	0.05	Sand and gravel (construction), magnesium compounds, gemstones.
Florida	2,020,000	4	5.32	Phosphate rock, stone (crushed), cement (portland), sand and gravel (construction), cement (masonry).
Georgia	1,450,000	7	3.82	Clays (kaolin), stone (crushed), clays (fuller's earth), cement (portland), sand and gravel (construction).
Hawaii[2]	75,300	45	0.20	Stone (crushed), sand and gravel (construction), gemstones.
Idaho	301,000	35	0.79	Phosphate rock, sand and gravel (construction), silver, molybdenum concentrates, stone (crushed).
Illinois	950,000	17	2.51	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), lime.
Indiana	740,000	18	1.95	Stone (crushed), cement (portland), sand and gravel (construction), cement (masonry), lime.
Iowa	487,000	27	1.28	Stone (crushed), cement (portland), sand and gravel (construction), gypsum (crude), lime.
Kansas	661,000	21	1.74	Cement (portland), helium (Grade-A), salt, stone (crushed), helium (crude).
Kentucky	587,000	24	1.55	Stone (crushed), lime, cement (portland), sand and gravel (construction), clays (ball).
Louisiana	294,000	36	0.78	Salt, sand and gravel (construction), stone (crushed), sand and gravel (industrial), lime.
Maine	106,000	43	0.28	Sand and gravel (construction), cement (portland), stone (crushed), stone (dimension), cement (masonry).
Maryland[2]	375,000	32	0.99	Stone (crushed), cement (portland), sand and gravel (construction), cement (masonry), stone (dimension).
Massachusetts[2]	235,000	38	0.62	Stone (crushed), sand and gravel (construction), lime, stone (dimension), clays (common).
Michigan	1,580,000	6	4.16	Cement (portland), iron ore (usable), sand and gravel (construction), stone (crushed), magnesium compounds.
Minnesota[2]	1,090,000	11	2.87	Iron ore (usable), sand and gravel (construction), stone (crushed), sand and gravel (industrial), stone (dimension).
Mississippi	176,000	40	0.47	Sand and gravel (construction), clays (fuller's earth), cement (portland), sand and gravel (crushed), clays (bentonite).
Missouri	1,290,000	8	3.40	Stone (crushed), cement (portland), lead, lime, sand and gravel (construction).
Montana	442,000	31	1.17	Palladium, sand and gravel (construction), platinum, cement (portland), gold.
Nebraska[2]	88,600	44	0.23	Cement (portland), stone (crushed), sand and gravel (construction), lime, cement (masonry).
Nevada	2,900,000	2	7.64	Gold, sand and gravel (construction), lime, silver, diatomite.
New Hampshire[2]	68,000	47	0.18	Sand and gravel (construction), stone (crushed), stone (dimension), gemstones.
New Jersey	285,000	37	0.75	Stone (crushed), sand and gravel (construction), sand and gravel (industrial), greensand marl, peat.
New Mexico	574,000	25	1.51	Potash, copper, sand and gravel (construction), stone (crushed), cement (portland).
New York	1,010,000	15	2.67	Stone (crushed), cement (portland), salt, sand and gravel (construction), wollastonite.
North Carolina	708,000	19	1.87	Stone (crushed), phosphate rock, sand and gravel (construction), sand and gravel (industrial), feldspar.
North Dakota	38,700	48	0.10	Sand and gravel (construction), lime, stone (crushed), clays (common), sand and gravel (industrial).
Ohio	1,060,000	12	2.78	Stone (crushed), sand and gravel (construction), salt, lime, cement (portland).
Oklahoma	462,000	28	1.22	Stone (crushed), cement (portland), sand and gravel (construction), sand and gravel (industrial), gypsum (crude).
Oregon	320,000	34	0.84	Stone (crushed), sand and gravel (construction), cement (portland), diatomite, pumice and pumicite.
Pennsylvania[2]	1,270,000	9	3.36	Stone (crushed), cement (portland), sand and gravel (construction), lime, cement (masonry).
Rhode Island[2]	17,300	50	0.05	Sand and gravel (construction), stone (crushed), sand and gravel (industrial), gemstones.
South Carolina[2]	460,000	29	1.21	Cement (portland), stone (crushed), cement (masonry), sand and gravel (construction), clays (kaolin).
South Dakota	186,000	39	0.49	Cement (portland), sand and gravel (construction), stone (crushed), gold, stone (dimension).
Tennessee	629,000	22	1.66	Stone (crushed), cement (portland), zinc, sand and gravel (construction), clays (ball).
Texas	2,180,000	3	5.75	Cement (portland), stone (crushed), sand and gravel (construction), salt, lime.
Utah	1,230,000	10	3.24	Copper, gold, sand and gravel (construction), cement (portland), salt.
Vermont[2]	70,700	46	0.19	Stone (dimension), stone (crushed), sand and gravel (construction), talc (crude), gemstones.
Virginia	697,000	20	1.84	Stone (crushed), cement (portland), sand and gravel (construction), lime, clays (fuller's earth).
Washington	450,000	30	1.19	Sand and gravel (construction), stone (crushed), cement (portland), diatomite, gold.
West Virginia	173,000	41	0.46	Stone (crushed), cement (portland), sand and gravel (industrial), lime, salt.
Wisconsin[2]	340,000	33	0.90	Sand and gravel (construction), stone (crushed), lime, sand and gravel (industrial), stone (dimension).
Wyoming	1,010,000	14	2.67	Soda ash, clays (bentonite), helium (Grade-A), cement (portland), sand and gravel (construction).
Undistributed	190,000	XX	0.50	
Total	37,900,000	XX	100.00	

[p]Preliminary. XX Not applicable.

[1]Data are rounded to three significant digits; may not add to totals shown.

[2]Partial total; excludes values that must be concealed to avoid disclosing company proprietary data. Concealed values included with "Undistributed."

TABLE 4

VALUE OF NONFUEL MINERAL PRODUCTION PER CAPITA AND PER SQUARE KILOMETER IN 2002, BY STATE[P, 1]

State	Area (square kilometers)	Population (thousands)	Total value (thousands)	Per capita		Per square kilometer	
				Dollars	Rank	Dollars	Rank
Alabama	134,000	4,500	$968,000	215	12	7,230	14
Alaska	1,530,000	649	1,030,000	1,590	2	674	48
Arizona	295,000	5,580	1,900,000	341	6	6,450	18
Arkansas	138,000	2,730	543,000	199	14	3,940	28
California	411,000	35,500	3,440,000	97	28	8,370	11
Colorado	270,000	4,550	614,000	135	19	2,280	40
Connecticut	13,000	3,480	142,000 [2]	41	46	10,900	5
Delaware	5,290	817	17,500 [2]	21	49	3,310	30
Florida	152,000	17,000	2,020,000	119	22	13,300	3
Georgia	153,000	8,690	1,450,000	167	15	9,500	10
Hawaii	16,800	1,260	75,300	60	42	4,490	26
Idaho	216,000	1,370	301,000	220	11	1,390	43
Illinois	146,000	12,700	950,000	75	35	6,510	17
Indiana	93,700	6,200	740,000	119	21	7,890	13
Iowa	146,000	2,940	487,000	165	16	3,340	29
Kansas	213,000	2,720	661,000	243	9	3,100	32
Kentucky	105,000	4,120	587,000	143	18	5,610	21
Louisiana	124,000	4,500	294,000	65	38	2,380	38
Maine	86,200	1,310	106,000	81	34	1,230	45
Maryland	27,100	5,510	375,000 [2]	68	37	13,800	2
Massachusetts	21,500	6,430	235,000 [2]	36	47	10,900	4
Michigan	152,000	10,100	1,580,000	157	17	10,400	7
Minnesota	219,000	5,060	1,090,000 [2]	215	13	4,980	25
Mississippi	124,000	2,880	176,000	61	40	1,430	42
Missouri	181,000	5,700	1,290,000	226	10	7,140	15
Montana	381,000	918	442,000	482	5	1,160	46
Nebraska	200,000	1,740	88,600 [2]	51	45	442	49
Nevada	286,000	2,240	2,900,000	1,290	3	10,100	8
New Hampshire	24,000	1,290	68,000 [2]	53	43	2,830	34
New Jersey	20,200	8,640	285,000	33	48	14,100	1
New Mexico	315,000	1,880	574,000	306	7	1,820	41
New York	127,000	19,200	1,010,000	53	44	7,970	12
North Carolina	136,000	8,410	708,000	84	33	5,190	24
North Dakota	183,000	634	38,700	61	41	211	50
Ohio	107,000	11,400	1,060,000	92	31	9,860	9
Oklahoma	181,000	3,510	462,000	132	20	2,550	36
Oregon	251,000	3,560	320,000	90	32	1,270	44
Pennsylvania	117,000	12,400	1,270,000 [2]	103	26	10,800	6
Rhode Island	3,140	1,080	17,300 [2]	16	50	5,510	23
South Carolina	80,600	4,150	460,000 [2]	111	24	5,700	20
South Dakota	200,000	764	186,000	244	8	932	47
Tennessee	109,000	5,840	629,000	108	25	5,760	19
Texas	691,000	22,100	2,180,000	99	27	3,160	31
Utah	220,000	2,350	1,230,000	522	4	5,580	22
Vermont	24,900	619	70,700 [2]	114	23	2,840	33
Virginia	106,000	7,390	697,000	94	30	6,600	16
Washington	176,000	6,130	450,000	73	36	2,550	37
West Virginia	62,800	1,810	173,000	95	29	2,750	35
Wisconsin	145,000	5,470	340,000 [2]	62	39	2,340	39
Wyoming	253,000	501	1,010,000	2,020	1	4,000	27
Undistributed	XX	XX	190,000	XX	XX	XX	XX
Total or average	9,370,000 [3]	290,000 [3]	37,900,000	131	XX	4,050	XX

[P]Preliminary. XX Not applicable.

[1]Data are rounded to three significant digits; may not add to totals shown.

[2]Partial total; excludes values that must be concealed to avoid disclosing company proprietary data. Concealed values included with "Undistributed."

[3]Excludes Washington, DC (which has no mineral production), with an area of 179 square kilometers and a population of 563,000.

Sources: U.S. Geological Survey and U.S. Census Bureau.